

Application No. 10/561,341
May 15, 2009
Reply to the Office Action dated March 19, 2009
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AMENDMENTS TO THE DRAWINGS:

The attached sheet of drawings includes changes to Figs. 4A, 4B, and 4C.

REMARKS/ARGUMENTS

Claims 8-17 are pending in this application. By this Amendment, Applicant amends the drawings and Claims 12 and 13.

Applicant appreciates the Examiner's indication that Claims 12 and 13 would be allowable if rewritten in independent form including all of the features of the base claim and any intervening claims. Applicant has amended Claims 12 and 13 to be in independent form including all of the features of the base claim and any intervening claims. Accordingly, Applicant respectfully submits that Claims 12 and 13 are allowable.

The drawings were objected to because the indicia in Figs. 4A, 4B, and 4C does not appear to meet the requirements under 37 C.F.R. § 1.84 (p3). Applicant has amended Figs. 4A, 4B, and 4C to increase the size of the indicia so as to meet the requirements under 37 C.F.R. § 1.84 (p3). Accordingly, Applicant respectfully requests reconsideration and withdrawal of this objection.

Claims 8-11, 14, 15, and 17 were rejected under 35 U.S.C. § 102(b) as being anticipated by Takamine et al. (U.S. 6,781,478). Claim 16 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Takamine et al. in view of Funasaka (U.S. 7,245,193). Applicant respectfully traverses the rejections of Claims 8-11 and 14-17.

Claim 8 recites:

An elastic wave filter comprising:
two longitudinally coupled resonator type elastic wave filter elements, each longitudinally coupled resonator type elastic wave filter element including three IDTs arranged on a piezoelectric substrate in a transmitting direction of an elastic wave; wherein
two IDTs of one longitudinally coupled resonator type elastic wave filter element are cascade connected to two IDTs of the other longitudinally coupled resonator type elastic wave filter element; and
in at least one of the longitudinally coupled resonator type elastic wave filter elements, electrode fingers of one or two of the IDTs that are cascade connected are arranged at a pitch that is smaller than a pitch of electrode fingers of a remaining IDT that is not cascade connected, such that a frequency of a conductance peak in said one or two of the cascade connected IDTs is higher than a frequency of a conductance peak in the remaining IDT. (emphasis

added)

The Examiner alleged that Fig. 8 of Takamine et al. teaches all of the features recited in Applicant's Claim 8, including the feature of "in at least one of the longitudinally coupled resonator type elastic wave filter elements, electrode fingers of one or two of the IDTs that are cascade connected are arranged at a pitch that is smaller than a pitch of electrode fingers of a remaining IDT that is not cascade connected, such that a frequency of a conductance peak in said one or two of the cascade connected IDTs is higher than a frequency of a conductance peak in the remaining IDT." Particularly, the Examiner alleged that the electrode fingers in the IDTs 201 and 203 of Takamine et al. are arranged at a pitch that is smaller than the pitch of the electrode fingers of the IDT 202. Applicant's respectfully disagrees.

The Examiner is reminded that when a reference does not disclose that the drawings are to scale, arguments based on measurement of the drawing features are of little value. See *Hockerson-Halberstadt, Inc. v. Avia Group Int'l*, 222 F.3d 951, 956, 55 USPQ2d 1487, 1491 (Fed. Cir. 2000) (The disclosure gave no indication that the drawings were drawn to scale. "[I]t is well established that patent drawings do not define the precise proportions of the elements and may not be relied on to show particular sizes if the specification is completely silent on the issue.>").

Takamine et al. clearly does not disclose or give any indication whatsoever that Fig. 8 or any other figure of Takamine et al. is drawn to scale. In fact, Takamine et al. specifically discloses, in col. 6, lines 55-57, that "FIG. 8 shows a schematic plan view for illustrating the electrode structure of another modified example of the first preferred embodiment of the present invention." Thus, contrary to the Examiner's allegations, Fig. 8 of Takamine et al. certainly cannot be relied upon to allegedly teach or suggest the feature of "in at least one of the longitudinally coupled resonator type elastic wave filter elements, electrode fingers of one or two of the IDTs that are cascade connected are arranged at a pitch that is smaller than a pitch of electrode fingers of a remaining IDT that is not cascade connected, such that a frequency of a conductance peak in said

one or two of the cascade connected IDTs is higher than a frequency of a conductance peak in the remaining IDT” as recited in Applicant’s Claim 8.

In addition, col. 6, lines 57-62 of Takamine et al. disclose, “In a longitudinally coupled resonator type surface acoustic wave filter 217 shown in FIG. 8, **the longitudinally coupled resonator type surface acoustic wave filters 200** according to the first preferred embodiment are longitudinally connected in a two-stage structure.” (emphasis added)

Col. 5, lines 3-11 of Takamine et al. disclose:

The detailed design of an example of the present preferred embodiment of **the longitudinally coupled resonator type surface acoustic wave filter 200** will be presented below.

Electrode finger cross width $W=78.8 \lambda l$.

The number of the electrode fingers of each of IDTs 201 and 203=24.

The number of the electrode fingers of IDT 202=40.

IDT wavelength $\lambda l=2.03 \mu m$. (emphasis added)

Therefore, Takamine et al. clearly discloses that the wavelength λl is $2.03 \mu m$ in **each of the IDTs 201, 202, and 203** of the longitudinally coupled resonator type surface acoustic wave filter 200, and accordingly, that **the pitch**, i.e. wavelength/2, **of each of the IDTs 201, 202, and 203** shown in Fig.8 **is the same**. Thus, contrary to the Examiner’s allegations, Takamine et al. certainly fails to teach or suggest the feature of “in at least one of the longitudinally coupled resonator type elastic wave filter elements, electrode fingers of one or two of the IDTs that are cascade connected are arranged at a pitch that is smaller than a pitch of electrode fingers of a remaining IDT that is not cascade connected, such that a frequency of a conductance peak in said one or two of the cascade connected IDTs is higher than a frequency of a conductance peak in the remaining IDT” as recited in Applicant’s Claim 8.

Accordingly, Applicant respectfully requests reconsideration and withdrawal of the rejection of Claim 8 under 35 U.S.C. § 102(b) as being anticipated by Takamine et al.

The Examiner relied upon Funasaka to allegedly cure deficiencies of Takamine et al. However, Funasaka clearly fails to teach or suggest the feature of "in at least one of the longitudinally coupled resonator type elastic wave filter elements, electrode fingers of one or two of the IDTs that are cascade connected are arranged at a pitch that is smaller than a pitch of electrode fingers of a remaining IDT that is not cascade connected" as recited in Applicant's Claim 8. Thus, Funasaka fails to cure the deficiencies of Takamine et al. described above.

In view of the foregoing amendments and remarks, Applicant respectfully submits that Claim 8 is allowable. Claims 9-11 and 14-17 depend upon Claim 8, and are therefore allowable for at least the reasons that Claim 8 is allowable. Claims 12 and 13 are allowable as indicated by the Examiner.

In view of the foregoing amendments and remarks, Applicant respectfully submits that this application is in condition for allowance. Favorable consideration and prompt allowance are solicited.

The Commissioner is authorized to charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1353.

Respectfully submitted,

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